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STOP THAT PRICE SPIRAL!

# THE AGRICULTURAL • SITUATION •

JUNE 1942

*A Brief Summary of Economic Conditions*

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**OFFICE OF PRICE ADMINISTRATION** extended price ceilings last month to cover 75 percent of the cost of American living—putting ceilings on prices at wholesale and retail of most of the commodities that consumers buy. Authority is the Emergency Price Control Act of 1942. Object is to stop the spiraling of prices against national interest in this time of war emergency—to stop the spiraling of prices against the common interests of producers, processors, distributors, consumers. . . The price ceilings are part of a 7-point program of national economy—a program of “equality of privilege” to sacrifice for the individual and the common welfare, as outlined by President Roosevelt in messages to Congress, to the Nation: “Tax heavily and keep personal and corporate profits at a reasonable rate \* \* \* fix ceilings on prices and rents \* \* \* stabilize wages \* \* \* stabilize farm prices \* \* \* put more billions into War Bonds \* \* \* ration essential commodities \* \* \* discourage instalment buying and pay off debts.” . . . Both the legislative and administrative branches of Government are working now to put the coordinate parts of this 7-point program into effect.

## What Price Ceilings Mean to Farmers

**E**XTENSION of Government price control has put ceilings on 83 percent of the commodities farmers buy for use in the production of farm products, and on 86 percent of the items entering the cost of farm family living. Principal exceptions in the cost of production items are mixed feeds and seeds; principal exceptions in the cost of living items are flour, butter, cheese, and fresh fruits. There are no ceilings on 38 percent of the items which make up the farm family food budget.

There are no ceilings on the prices the farmer receives for raw products, except wool, but there are ceilings on wholesale and retail prices of commodities processed from about 60 percent of the products contained in the Government index of prices received by farmers. All processed commodities produced and sold by farmers also are exempt from ceilings at the farm level in the amount of \$75 per farm in any one calendar month.

The ceilings on cost-of-production and cost-of-living items are at the highest of prices in March. The national index of prices paid by farmers in mid-March was 150. In April it was 151, in May it was 152. Ceilings on wholesale prices went into effect on May 11, and on retail prices May 18. The index of prices received by farmers in mid-March was 146. In April it was 150, in May it was 152.

**A**UTHORITY for the extension of price ceilings is the Emergency Price Control Act of 1942. This Act provides that no maximum price shall be established or maintained for any agricultural commodity below 110 percent of parity, the market price as of October 1, 1941, the market price as of December 15, 1941, or the average price during the period July 1, 1919, to June 30, 1929—whichever is highest. The act provides that no maximum

price shall be established on processed agricultural commodities which will yield farmers less than the highest of these four levels.

President Roosevelt stated upon signing the Price Control Act in January that there is nothing in the act "to prevent farmers receiving parity \* \* \* most farmers realize that when farm prices go much above parity, danger is ahead." He urged abundant production during this period of wartime emergency, and said that he hoped agricultural prices "can be maintained at such level as to give farmers a fair return for increasing production."

A statement of policy was then issued jointly by Price Administrator Leon Henderson and Secretary of Agriculture Claude R. Wickard. This statement pointed to the protection afforded farmers by the floors which had been placed under farm prices of all major products in connection with the 1942 farm production program, and assured farmers that the Office of Price Administration would "use its powers to see that the things that farmers buy are held down" so that farm production would not be restricted by unnecessarily high production costs.

**T**HE Price Control Order of April 28 puts no ceilings on the prices received by farmers, and no ceilings—at any point of trade—on nonprocessed domestic agricultural commodities, so long as these commodities remain substantially in their original state; it excepts also a number of processed agricultural commodities which were not yielding to farmers in March the maximum of prices provided for in the Emergency Price Control Act.

Exceptions include eggs and poultry, dairy products such as butter, cheese, condensed and evaporated milk; flour, mutton and lamb, dried prunes, canned citrus, dry edible

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beans, leaf tobacco (whether dried or green), nuts (but not peanuts), linseed oil, linseed cake and linseed meal, mixed feed for animals, manure, live animals, stumpage, logs and pulpwood, wood and gum for naval stores, and naval stores prior to sale to industrial consumers or prior to the first sale to a distributor.

Excepted also are farm sales of commodities processed by farmers from products produced on their own farms, if the total of such sales does not exceed \$75 in any one calendar month. Such commodities include milk, maple sirup, strained honey, sausage meats, preserved fruits, and the like.

There is no ceiling on the prices the farmer receives for any raw products, except wool, but there are ceilings on most of the commodities the farmer buys for use in the production of these products. To be sure, the checks which have been placed on many processed farm commodities may act indirectly as checks on the prices farmers receive for raw products selling above the levels described in the Emergency Price Control Act; but the rise in prices paid by farmers for commodities used in production and living also has been checked.

**T**HE Dairyman finds no ceiling on the price he may receive for milk (other than on milk he sells at retail in excess of \$75 a month), nor is there any ceiling on the price he pays for mixed feed and hay. But there are ceilings on prices of all high-protein byproduct feeds except linseed cake and meal. There is a ceiling on the retail price of fluid milk and cream, but no ceiling at any point of processing and distribution on butter, cheese, condensed and evaporated milk. There is a ceiling on ice cream at all points of production and distribution.

The Poultryman finds no ceiling at any point on the prices of poultry and eggs, but there are ceilings on the prices of commodities (other than mixed feeds) the poultryman buys for use in production. And as in the case of the dairyman and the producers of all other agricultural commodities

there are ceilings on prices of machinery, implements, building supplies, and other goods used in the production of farm products.

The Hog grower finds no ceiling on the price he receives for hogs, but there are ceilings on prices of hog products at wholesale and retail. There is no ceiling on prices the hog grower pays for corn and other feed grains, but there are ceilings on tannage and high protein byproduct feeds. The same situation is substantially true of Beef Cattle, and of Sheep and Lambs with the exception that there are no ceilings at wholesale and retail on the prices of mutton and lamb, since the farm price of sheep and lambs in March was below the levels mentioned in the Emergency Price Control Act.

The Cotton grower finds no ceilings on the prices he receives for cotton, but there are ceilings on raw wool (based on its clean content) and on cotton and wool products at wholesale and retail. The same is true of Cottonseed in the fats and oils group of commodities. As to Oil Crops in general, there are no ceilings on prices received by farmers, but there are ceilings on the processed oils other than linseed oil at wholesale and retail.

The producers of Corn and Other Feed Grains find no ceilings on the prices they receive for these products, nor at any other point of sale and distribution. Nor are there any ceilings on Mixed Feeds. There are ceilings, however, on all high protein byproduct feeds—except linseed meal and cake—at wholesale and retail. There are no ceilings on Wheat and Flour at any point of trade, but there are ceilings on packaged cake mixes and other packaged flour mixes, and on bread sold at wholesale and retail.

There are no ceilings anywhere in trade on fresh Fruits and Vegetables, (bananas excepted), but there are ceilings on most processed fruits and vegetables sold at wholesale and retail.

**C**EILINGS have been put on prices of most commodities used in farm

family living—at both wholesale and retail levels. Farm families gain much from this general leveling of prices, since most of their income is spent for necessities on which price ceilings have now been put. The commodities include food and household sundries, apparel and yard goods, household furniture, appliances, and furnishings, hardware, ice, fuel and automotive goods, tobacco, drugs, and toiletries. Food and household sundries include fresh beef, pork and pork products, and canned fruits (except citrus), canned vegetables, and juices.

There are ceilings on canned salmon and canned soups, packaged flour mixes, macaroni and spaghetti, rolled oats, corn flakes, bread, crackers, fresh milk and cream, lard, vegetable shortening, sugar, coffee, cocoa, table salt, corn meal, rice, toilet paper, soap, and paper napkins. Apparel and yard goods include men's and boys' clothing, women's and girls' clothing, infants' clothing, yard goods, and footwear.

Household furniture, appliances, and furnishings include radios and phonographs, vacuum cleaners and carpet sweepers, refrigerators and iceboxes, washing machines and sewing machines, stoves and ranges, floor lamps and bridge lamps, light bulbs, ironing boards, step-on cans, floor brooms,

China and pottery tableware, and cooking utensils. They include kitchen tables and chairs, studio couches and sofa beds, mattresses, bedsprings, and living room, dining room, and bed room furnishings of all kinds.

All house furnishings from rugs and carpets to window shades are affected by the ceiling price order; included also are hardware from claw hammers to axes, shovels, and saws, adult size bicycles and bicycle tires, flashlights, ice, coke, coal, charcoal, firewood, kerosene, fuel oil, gasoline, oil, and tires and inner tubes.

OPA also recommended that State and local officials put ceilings on rents of residential properties in 323 designated "defense areas" the country over—on rents as of March 1 in most cases. This recommendation does not apply to farm properties except where farmhouses are rented for residential purposes as distinguished from the rental of farms for purposes of agricultural production. The price order puts ceilings on "services" in wholesale and retail trade—on services as of March, the ceilings on wholesale services to go into effect May 11, and on retail July 1.

—FRANK GEORGE

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## Commodity Reviews

### PRODUCTION: Increase

FARM work picked up rapidly after a late start this spring, pastures and ranges in most States were reported as being in unusually good condition, and the Crop Board said in May that "fairly heavy production of most groups of crops still seems the most probable outcome." Hay crops in much of the East were in need of rain, but prospects for feed grain production in the Corn Belt were regarded as "good."

As for livestock products, the Board said: "With numbers of producing livestock and poultry above or approaching previous peaks, and large reserves of grain and hay on hand, the production of livestock and livestock products seems likely to continue outstandingly heavy for some time. Milk production during April was 4 percent above production in April last year, and with 14 percent more hens, the production of eggs was up about 17 percent."

Early reports from principal fruit sections showed rather favorable pros-



pects for apples, pears, grapes, cherries, plums, and prunes, but in some North Atlantic and North Central States peach buds had been badly damaged by winter and spring freezes. In the Southern States another large peach crop was in prospect. The Board added that national supplies of commercial vegetables for market are likely to be moderately above those of last year.

### FOOD: Supply

Plenty of food in total supply, but with possible shortages of some items as increasing quantities of vital foods go to war fronts and our Allies is the outlook for 1942-43. Milk continues to flow in high tide, eggs to pile higher than ever before, meats to be abundantly available, and fresh vegetables to roll heavily to market. But the big 1942 crop-growing season is only well started, no line will be had on the big feed crops for another month or more, and the same is true of the oil crops.

There is never a year when supplies of the hundreds of different foods are in perfect balance with demand, and this year is no exception. This year there is the additional unbalancing factor of extraordinary wartime demand requiring production and processing of the biggest possible volume of concentrated foods—requiring virtually a change-over in many parts of our farm plant, similar to the change-over in industry, from civilian to military goods.

Increasing difficulty is anticipated in getting crops harvested, transported processed, marketed, and stored this year. The problem is mainly of labor and transportation. News comes already of truck crops not harvested for lack of labor, and the transportation system is becoming increasingly tight. Requirements for transport of goods of all kinds are much larger this year than last, but the total of transport facilities—ship, rail, and motor—is smaller.

Some Government officials see in the whole situation a growing need for the broadening of allocations of goods and facilities of all kinds.

### LAND ARMY: Women

Larger numbers of women and children are doing farm work this season to make up for the loss of manpower to industry and the military. A special survey in early spring showed approximately 13 women to every 87 men working on more than 41,000 farms the country over. BAE said this may not be representative of all farms in the United States, but that it indicates "a definite trend toward greater use of female workers on farms."

Farm women and girls are doing light chores, milking, and light field work in many regions where regular male workers have left the farms to take industrial jobs or to join the armed forces. The shift to female workers has been especially marked in the South Atlantic, West North Central, and Pacific Coast States. In the Carolinas, Georgia, Florida, the Dakotas, Washington, and Oregon as many as 20 percent of all agricultural workers were reported as being women.

The survey showed that 10 to 15 percent of all persons living on farms in southern New England, New Jersey, and Delaware have off-farm jobs and nonfarm work \* \* \* that 6 to 14 percent of the employable farm population in the Southeast was inactive but available for farm work; much less unused labor was reported on farms in most other parts of the country \* \* \* that "so far this season, the use of children under 14 years of age, except at incidental chores, has not been extensive."

### PRICES: Parity

The index of prices received by farmers advanced 2 points last month, principally on account of higher prices of fruit, butterfat and eggs. Prices of

beef cattle and hogs receded from the relatively high levels of recent months, but lambs were sharply higher. Prices paid by farmers for commodities used in production and in farm family living advanced slightly, but this was be-

### Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
1941			
May.....	112	125	90
June.....	118	125	92
July.....	125	130	96
August.....	131	133	98
September.....	139	136	102
October.....	139	139	100
November.....	135	141	96
December.....	143	142	101
1942			
January.....	149	146	102
February.....	145	147	99
March.....	146	150	97
April.....	150	151	99
May.....	152	152	100

<sup>1</sup> Ratio of prices received to prices paid.

### Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Product	5-year average, August 1909-July 1914	May average 1910-14	May 1941	April 1942	May 1942	Parity price May 1942
Wheat, bu.....cents	88.4	90.3	79.4	99.7	99.8	134.4
Corn, bu.....do	64.2	66.2	65.9	79.7	81.4	97.6
Oats, bu.....do	39.9	41.5	34.0	51.8	51.6	80.6
Rice, bu.....do	81.3	-----	115.4	178.1	177.5	123.6
Cotton, lb.....do	12.4	12.7	11.68	19.03	19.17	15.85
Potatoes, bu.....do	69.7	69.5	152.8	116.2	114.8	108.1
Hay, ton.....dollars	11.87	12.28	7.98	11.13	10.82	18.04
Peanuts, lb.....cents	4.8	4.9	3.65	6.25	6.30	7.30
Apples, bu.....dollars	96	1.27	1.01	1.41	1.59	1.46
Hogs, cwt.....do	7.27	17.30	8.51	13.48	13.28	11.05
Beef cattle, cwt.....do	5.42	15.71	8.51	10.71	10.65	8.24
Veal calves, cwt.....do	6.75	16.65	9.91	12.22	12.45	10.26
Lambs, cwt.....do	8.88	16.45	9.34	10.83	11.62	8.94
Butterfat, lb.....cents	26.3	24.0	34.7	37.0	38.6	37.9
Chickens, lb.....do	11.4	11.8	16.2	18.4	18.4	17.3
Eggs, doz.....do	21.5	16.6	20.1	25.6	26.5	26.8
Wool, lb.....do	18.3	17.8	35.9	39.2	40.2	27.8
Tobacco: <sup>4</sup>						
Fire-cured types 21-24.....do	13.6	-----	7.6	11.2	10.6	12.9
Maryland types 32.....do	22.9	-----	29.0	27.0	29.8	21.8
Cigar filler types 41-45.....do	14.1	-----	6.7	11.4	99.3	13.4
Cigar binder, types 51-55.....o	19.9	-----	13.6	15.6	18.6	18.9

<sup>1</sup> Revised.

<sup>2</sup> Post-war base.

<sup>3</sup> Adjusted for seasonality.

<sup>4</sup> Base price crop years 1910-29.

## MILK: High Tide

Milk is in flush production this month, but the tide will fall rapidly as hot weather sets in; it will decline seasonally through November when another season of rising production will get underway. Effort is to lessen the usual summer slump by means of supplemental feeding. In any case, total production will be larger this summer than last, mainly by reason of the fact that there are about 3 percent more cows on farms.

Cows in the South were beginning to feel the effects of dry weather in early May, but in the big northern dairy areas production per cow continued to exceed the output at the corresponding time last year. Even so, it is not inconceivable that total production the country over this calendar year may fall below 120 billion pounds—possibly get down to 118 billion as compared with 115.5 billion last year.

Government dairy specialists estimate, however, that production of milk and manufactured dairy products will be sufficiently larger during all of this year than last to permit increased exports under the Lend-Lease program and a slight increase in domestic consumption. AMA announced last month that arrangements would be made to provide a market for "distress milk" in the New York milkshed (where production has been running ahead of the production goals). The surplus will be made into cheese.

## EGGS: Record

Production of eggs during the first 4 months of this year mounted to a higher seasonal peak than ever before—nearly 18.7 billion eggs, as compared with little more than 16 billion during the same period last year. A large proportion of these eggs was processed for Lend-Lease export on commitments to help strengthen the food supply of our Allies. Big quantities went into storage against the

seasonal decline in production now under way. The bulk of the eggs went into domestic consumption.

Available information shows that production will be considerably larger this summer than last. There are many more layers on farms, and relationships between egg prices and feed prices are such as to induce poultrymen to speed Biddy toward maximum production. It looks now as though production of eggs during all of 1942 will be at least 13 percent larger than in 1941, and exceed the revised goals announced in January.

BAE says also that earlier indications of a large output of chickens this year are being verified. Hatchery output of baby chicks was 19 percent larger this April than last, and the number of young chickens on farms May 1 was 16 percent more than on that date last year. Production of turkeys will be considerably larger this year than last. Despite increased production, the Government poultry specialists look for a higher average of prices of both chickens and turkeys in 1942 than in 1941.

## CATTLE: Outlook

Outlook for cattle producers and feeders has been changed by the Government price ceilings put into effect last month on wholesale and retail prices of beef. A continued rise in prices of cattle of all grades had been expected (even though the average of prices has been about 25 percent above parity in recent months), but this is true now only of the lower grades. This narrowing of the spread between the low and high grades means that many cattle which would have been "fed out" will be marketed as short-fed cattle instead; also that many range cattle normally destined for the feed lots will go to slaughter direct.

Total marketings of cattle for slaughter this summer may be a little larger than had seemed likely prior

to the application of price ceilings; this will help to offset a prospective reduction in domestic supplies of pork as a result of the purchase of large quantities of pork for Lend-Lease export. Earlier marketing of fed cattle will also ease the feed supply situation somewhat, for the dairyman and hog producer; as to this, farm management specialists for long have pointed out that in times such as these feed is most efficiently used for hog production rather than for the long-term "feeding out" of beef cattle.

### PIG COUNT: June

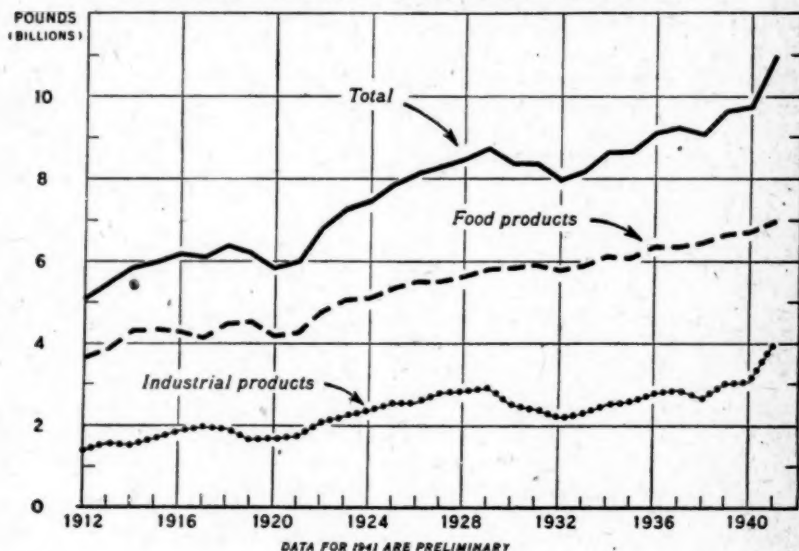
Farmers' reports on this year's spring pig crop were beginning to flow in to the BAE in early June. About 600,000 "pig cards" had been distributed by rural mail carriers, and the flow of early returns indicated a bigger sampling of the "crop" than

ever before. Results of the survey will be made known on June 26.

Meanwhile, the best available line on the crop is the pig survey of last December, when producers indicated that sows would farrow about 62 million pigs this spring. This compares with 50 million pigs in each of the last 2 years. A spring crop of this size will tax marketing facilities to the utmost next winter, so that special arrangements may have to be made by the Government to handle it.

The peak of winter hog marketings usually is in only 2 or 3 weeks in December or January. In 1940-41 it was in early December, and in 1941-42 in the last half of January. One way of relieving the load next winter would be to spread the marketings over a period of several weeks instead of the usual 2 or 3. This would also help to lessen the impact of the heavy marketings on prices at that time.

### UTILIZATION OF FATS AND OILS (CRUDE BASIS) IN FOOD AND INDUSTRIAL PRODUCTS, UNITED STATES, 1912-41



Total utilization of fats and oils in the United States increased in 1941 to the record level of 10,942 million pounds—1,175 million pounds above the previous high reached in 1940. Utilization in food products was only 4 percent larger than in 1940, but utilization in industrial products—reflecting the marked gain in manufacturing and building activity—was 30 percent greater.



BAE stated last month that the outlook for hog prices this summer continues the most favorable in a number of years. Hog-corn price ratio in early May was 16.5 (Chicago basis) compared with the longtime average of 11.6. Corn into pork is highly profitable business this year.

### LAMBS: Prices Up

Prices of lambs advanced sharply during May. Prices of mutton and lamb were excluded from general price ceilings at wholesale and retail for the reason that prices to farmers in March were below the highest of the four levels prescribed in the Emergency Price Control Act. But in mid-May, prices of lambs were approximately at the highest of these levels. (Up to press-time in early June, no ceiling prices on mutton and lamb had been announced by OPA.)

Development of early lambs was delayed in March, but improved in April. Market movement of new-crop lambs was delayed, but supplies are larger in this month of June than last. Marketings of early lambs from California and Arizona were somewhat larger this April than last, but a fairly large proportion of the lambs were in only feeder condition. Some of the early California lambs sold earlier as feeder lambs were being marketed in May as slaughter lambs.

The condition of sheep and lambs in Texas was improved considerably in April, but rainfall delayed shearing and it was expected that this would delay the market movement of shorn yearlings. Early lambs developed well in the Southeast, but it was expected that the market movement from the Southern Corn Belt and the Northwest would be several weeks later than usual.

### WOOL: Prices

Little change in wool prices is expected this month since scoured-basis prices for most wools are close to the maximum prices permitted for shorn

wools under OPA price regulations. Prices to growers this spring have been the highest since 1925. At current levels the 1942 clip should yield producers more than 150 million dollars, as compared with 138 million in 1941. Largest preceding total was 147 million dollars in 1918. During the last 18 years (1924-41) the cash income from shorn wool has represented about 40 percent of the total income received by growers from sheep, lambs, and wool.

### FATS, OILS: Gage

Uncle Sam has been anxiously watching the quivering gage on the Nation's supply of fats and oils. Domestic production will be larger this year than last by about 1 billion pounds, but this increase will only offset the reduction in imports. (Imports of fats, oils, and oilseeds in terms of oil have varied in recent years from 1.5 to 2.5 billion pounds annually.) Requirements for fats and oils are much larger this year than last; reserve stocks will be drawn upon heavily unless the Federal Government should broaden its allocations program.

BAE reports that the disappearance of paint and varnish oils set a new high record in 1941. War Production Board prohibition of nonessential building will tend to reduce the quantity of paint and varnish oils needed this year, but this reduction may be offset by increased use of such oils for ships and armaments, defense housing, and possibly for repainting and redecorating purposes. Supplies of the "fast-drying" oils—tung, oiticica, and perilla—will be very small, but abundant supplies of linseed oil are in prospect.

Prices of fats and oils generally are expected to change little during the next few months.

### FRUITS: Plenty

The Nation's total fruit supply for the 1942-43 marketing season may equal last year's bumper output, in the opinion of Government fruit specialists considering how well advanced

were spring growth and blossoming in nearly all important fruit areas last month.

Peaches in 10 southern States will likely be a smaller crop this year than last, by about 12 percent. But the crop last year was the largest on record, and this year's output will be 51 percent larger than the average of the preceding 10 years. Peach prospects appeared rather favorable in most other important sections except New England and some of the North Central States.

A large crop of apples is expected this year since the bloom was rather uniformly heavy the country over. Pear prospects point to a crop at least as large as in 1941. And the production of grapes is expected at least to equal the 10-year average. Production of cherries will total considerably more than last season, especially on the Pacific coast, where bumper crops of both sweet and sour varieties have been indicated.

Large crops of Northwest prunes and California plums and apricots are in prospect this season. It is too early for definite indications as to citrus-fruit production, but growing conditions this spring have been favorable in nearly all important producing areas. Good-sized crops of walnuts, almonds, filberts, and pecans are expected this year.

### **CANNERY CROPS: Ceilings**

OPA issued special price ceiling regulations last month designed to compensate for canners' higher costs in putting up this year's pack of canned asparagus, lima beans, snap beans, beets, sweet corn, carrots, peas, spinach, pumpkins, squash, tomatoes, and tomato juice. At the same time, the Department of Agriculture announced a support program through price guarantees to canners of these vegetables at 92 percent of the canner's individual gross ceiling prices.

In a joint statement it was announced that the price regulation and

support program was drafted to enable canners to operate at maximum production, to enable farmers to produce to capacity, and to protect consumers against paying prices for canned vegetables higher than those prevailing in March 1942. The two Federal agencies announced that definite price regulation on canned fruits would also be worked out soon.

### **LEND-LEASE: Record**

April set a high record of monthly purchases of farm products by the Agricultural Marketing Administration under the general buying program for Lend-Lease and other needs. Total was nearly 194 million dollars. The list of products reads like the inventory of a well-stocked wholesale provisioner. Meat products and dairy and egg products led the groups of commodities bought—both in volume and dollar value. Particularly heavy purchases were made of canned and cured pork, frozen pork loins, lard, dried eggs, dry skim milk, evaporated milk, cheese, butter, and granulated sugar.

### **WHEAT: Harvest**

The big winter wheat crop now being harvested is taxing beyond capacity our grain storage and transportation facilities. The crop is much larger than had been expected earlier in the season, and a good deal of it must be stored on farms. It looks now as though the total supply for 1942-43 (carryover, plus 1942 production of winter and spring wheat) will be close to 1.5 billion bushels. This compared with 1.3 billion bushels in 1941-42.

To help relieve the storage situation, the Department of Agriculture announced last month it would buy grain storage bins from whatever sources available. Bins having an individual capacity of 1,000 to 2,400 bushels are wanted. The bins will be used for storing wheat delivered to the Commodity Credit Corporation in satisfaction of crop loans; they will be made available also to producers unable to

make other arrangements for storing the 1942 crop.

Wheat prices have been affected recently by a combination of conditions, not the least of which has been the tight storage and transport situation this season. At month's end ne-

gotiations were still under way in Washington, looking toward the use of larger quantities of wheat to supplement the diminishing supply of feed grains for the increased production of livestock products this year and next.

—F. G.

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## Conserving Our Wartime Food Supply

**L**AST fall we had the pleasant feeling that our wartime farm program would carry through with hardly a hitch. We had set our production goals, and we had every reason to believe that these goals would be reached. Prices of the foods we needed most were being supported at levels that would assure production and reward farmers for their efforts. Agriculture was traveling a broad, well-marked road.

It is still traveling the same road, but war has set out some obstacles that don't show on the map. Ship losses along the Atlantic Seaboard, together with a shortage of rubber tires for trucks, have brought about a near-crisis in transportation. Shortages of container materials—particularly of tin and burlap—have complicated the packaging problem. And the armed forces and war industries have made deeper inroads in our farm labor supply than we had counted on.

These events have not discouraged us, but they have jerked us out of our complacent belief that a food shortage was something that couldn't happen here. Before we got into the war, there was some justification for the feeling of smug security in our food supply. But so many new factors have come into the picture since Pearl Harbor, we can no longer think of food in peacetime terms. We see now that we must make new plans to cope with new conditions.

**T**RANSPORTATION is our most serious bottleneck at the present time. The motortrucks on hand are no better than their tires, and when the tires wear out the trucks are through. This will throw an additional burden on the railroads, which have already been pinch-hitting for the ships lost to submarines. The railroads have been doing a magnificent job, but they may require the cooperation of all of us before long. This cooperation might take the form of the rationing of nonessentials, which would allow the railroads to

haul more war materials and food products.

Container materials must be conserved through allocation, better use, and standardization—together with the development of substitutes. New techniques of storing and preserving perishable foods also need to be encouraged to a greater extent than they have been up to now. The Department of Agriculture, in cooperation with various groups, is doing a great deal of work on the dehydration of food products, such as fruits, vegetables, dairy and poultry

products, and, experimentally, meats. By eliminating the moisture content of these foods, fewer containers are needed.

Manpower must be used most efficiently and considerable progress is being made in this field. New sources of labor supply are being tapped. Farmers themselves are working longer hours. More family workers are being used. Neighborhood labor pools are being organized. Farm machinery is being used more intensively. An increasing use is being made of the labor-placement facilities of the U. S. Employment Service. But we can expect an increasing drain on our labor supply as the armed forces expand, and as more men go into war industries.

**G**RANTING that these problems can be solved, we must go even further in conserving our food supplies. A carefully planned program of allocation must be put into effect. Already the start has been made. We have such a program for canned foods to meet all Government requirements, including military and Lend-Lease needs. It would not be surprising if further steps toward a broad allocation program had been taken by the time this article gets into print. As this is written a voluntary system of allocation is operating in connection with obtaining Lend-Lease supplies of pork and lard, and the necessity for making it mandatory may not be far off. In the field of fats and oils in particular a supply allocation system is rapidly becoming an urgent necessity.

Allocation, in turn, must be tied in with a definite program for reducing waste of our food supplies. The Agricultural Marketing Administration is working on a program now to deal with seasonal oversupplies of perishables especially in the fruit and vegetable field. Under this program, commercial distribution and sale of seasonally heavy supplies of perishable farm products will be encouraged in order to increase their consumption

and widen markets for farmers. The plan aims at increasing the commercial movement of agricultural products, which, because of their abundance, would otherwise be left unharvested. These commodities will be featured as Victory Food Specials.

Designation of Victory Food Specials will be made by the Agricultural Marketing Administration. Food distributors will call attention to the products in heavy supply through store advertising and displays. Full cooperation of producer, shipper, wholesaler, and retailer groups has been pledged in carrying out the program, and a national committee will be named to assist.

A Nation-wide campaign by food distributors and AMA has already pushed successfully the sale of lettuce and other campaigns are in progress on asparagus and spinach (in the Northeast). Victory Food Specials that may soon be featured nationally, if indicated heavy supplies materialize in the next few weeks, will be early potatoes, early peaches, Pacific coast cherries, California plums—and in the poultry line, broilers and fryers. Programs such as these help farmers help themselves, whereas Government purchase of agricultural surpluses is simply a stop-gap.

**T**HE Agricultural Marketing Administration is trying to promote a good marketing system generally—a marketing system that will help increase the farmer's share of the consumer's dollar and help get the consumer more for his dollar. Moving agricultural products from the farmer to the consumer generally costs more than production on the farm, and a reduction in charges and costs would be of direct benefit both to producers and consumers. Much of the waste in marketing—and of our food supplies—could be overcome through improvement in the techniques of assembling, processing, transporting, storing, wholesaling, and retailing.

More people are using the Federal



grades than ever before, largely because the enormous food purchases of the Government are based on the Federal grades or on specifications that follow the Federal grades rather closely. More people are finding, too, that use of the Federal standards eliminates waste by providing a common language of quality that expedites the flow of farm commodities. But the Agricultural Marketing Administration is willing to admit that the Federal standards are not perfect—that more work needs to be done in the field of standardization.

Work already done in the Department of Agriculture has focussed attention on the need for improving many city markets and commodity concentration points. Of course, during this war there is no immediate prospect for changing the physical set-up of these centers. But specific plans can be worked out for the kind of markets that are needed—plans that will be ready to be put into effect after the war is over.

**W**HATEVER can be done to eliminate waste in our production and marketing programs should be done, for we need food and still more food. Our purchases, for Lend-Lease and other purposes, are enormous. From March 15, 1941, to May 1, 1942, purchases of meat products totaled 345 million dollars; dairy and egg products, 401 million; vegetables, 31 million; fruit, 46 million; grain and grain

products, 27 million; fish, 24 million; miscellaneous foods, 29 million; vitamin concentrates, 4 million; and non-foodstuffs, 18 million. Cotton, corn, rosin, tobacco, and wheat made available by the Commodity Credit Corporation added 147 million. In all, the expanded purchase program to May 1 has added up to an f. o. b. cost of well over a billion dollars.

Lend-Lease purchases of foodstuffs and other farm commodities for shipments to the United Nations may be even larger in the future than they have been in recent months. For the most part, we know what the British requirements will be for some months ahead. We are just beginning to get an inkling of Russia's needs. And requirements of other countries fighting on our side are also in the picture.

Lend-Lease needs, together with the food required for our armed forces, civilians, and domestic distribution programs, mean that we cannot rest on our oars for even a minute. We must continue to set production goals and do our best to reach them. We must continue to overcome obstacles blocking the efficient marketing of farm products. Production and marketing and conservation of food is one field in which everybody—not agriculture alone—can cooperate to some degree. It is a national problem.

ROY F. HENDRICKSON,  
*Agricultural Marketing  
Administration.*

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## We Ship Them Food—Not Water

**S**OME enterprising statistician one day will probably calculate the huge gallonage of water our food industry annually ships around the country—water that is the moisture content of eggs, milk, fruit, vegetables, and other foods. In normal times we may be able to afford such economic waste, but not now. Shortages of transportation facilities and container

materials make imperative the need for shipping only the nutritive parts of food, particularly of the food earmarked for Lend-Lease shipment, and the food dehydrating plants for months have been wringing out the water.

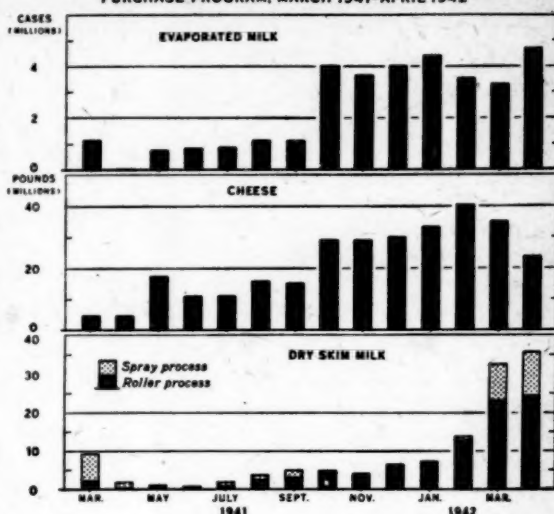
Outstanding in the field of dehydration is the egg-drying industry, purchases for Lend-Lease having totaled almost 157 million pounds from April

15, 1941, to May 1, 1942. Purchases to the end of 1942 will probably total 200 million pounds. This volume can easily be reached in view of the fact that there are 82 drying plants, mainly in the Midwest and Southwest, with an annual capacity of 285 million pounds. The 18 plants in operation in 1940 produced only 7 million pounds.

Since most of the dried eggs produced so far have been for shipment to our allies, homemakers here in the United States haven't had a chance to try them. But experts at the Department of Agriculture are predicting a wider domestic distribution. Dried eggs are wholesome and admirably adapted for use in cakes, doughnuts, pancake flours, and noodles. Dried whole eggs can be whipped up into an omelette, or can even be scrambled, without too much loss of flavor. The development of a "consumer package," holding the equivalent of a dozen fresh eggs, has simplified the distribution problem under Lend-Lease, and this package may work out well here at home.

**L**IKE the egg-drying plants, the dry skim milk factories are working overtime to meet Lend-Lease requirements, and Government purchases to May 1, 1942, totaled almost 128 million pounds. Production showed signs of lagging early in the spring, mainly because large quantities of whole milk were being used by evaporating plants. But the Government raised the support price of butter to 36 cents a pound, Chicago basis, which diverted more whole milk into butter manufacture. This in turn meant more skim milk for the drying industry and the critical situation was eased.

PURCHASES OF EVAPORATED MILK, CHEESE, AND DRY SKIM MILK.  
BY THE DEPARTMENT OF AGRICULTURE UNDER GENERAL COMMODITIES  
PURCHASE PROGRAM, MARCH 1941-APRIL 1942



Dry skim milk powder is used mainly for cooking purposes in Britain and Russia, where it has proved to be an excellent complement to fresh milk supplies. American homemakers have never used the product to any great extent, because fluid, evaporated, and condensed milk have generally been available at reasonable prices. But there is a growing belief among nutrition experts that a larger proportion of our total milk supply should be used for human consumption rather than for animal feed. Dry skim milk would fit well into any scheme for raising our nutritional standard at a relatively small cost.

Only a little over 4 million pounds of dry whole milk have been purchased for Lend-Lease thus far, but it is expected that purchases will pick up in the near future. The whole milk product doesn't keep quite as well as dry skim milk, because the butterfat in the powder tends to become rancid if not properly packed. But fresh dry whole milk, when reconstituted with water and chilled, is more comparable to fresh milk than dry skim, and it has great potentialities if the technical storage problem can be solved.

**V**EGETABLES are relative newcomers to the food dehydrating industry but they are showing signs of going places. Almost 1,600,000 pounds of dehydrated vegetables have been purchased for Lend-Lease shipment, the list including beets, cabbage, carrots, onions, potatoes, spinach, turnips, and julienne or mixed vegetables.

It is estimated unofficially that the total capacity of existing vegetable dehydration plants in 1941 was about 15 million pounds. Considering the fact that we have a shortage of tin cans and other container materials, the Department of Agriculture, working in cooperation with the War Production Board and the Army's Quartermaster Corps, is making plans to provide the necessary facilities to produce more dehydrated vegetables.

The future of the vegetable dehydrating industry after wartime demand tapers off is something nobody can predict with accuracy. If the dehydrating plants can turn out vegetables that look and taste about the same as the fresh, if these products can be sold at a price that compares favorably with the fresh, and if consumers can be educated to use these products, the demand may improve. Much technical progress is being made.

**M**ORE than 6 million pounds of dehydrated soup has been bought for Lend-Lease, together with over a half a million pounds of dehydrated

tomato soup flakes. A large part of the dehydrated soup output is manufactured by spraying cooked and pulped vegetables on hot revolving drums, where the water is driven off in a matter of seconds. The dried product peels off the drum like paper and then is crumbled into flakes. The flakes become soup when water and seasoning is added.

"Dehydrated," in the sense that soup is dehydrated, implies the mechanical circulation of artificial heat, while "dried" implies dehydration by any means. A wide variety of "dried" fruits and vegetables—the old standbys we have been eating for years—are being purchased for Lend-Lease shipment. To May 1 the Government had bought beans totaling 327 million pounds; peas, 37 million; prunes, 270 million; raisins, 110 million; apples, 17 million; apricots, 17 million; and pears, 7 million pounds.

Present indications are that more dried milk, eggs, beans, peas, vegetables, and fruit will be produced in 1942 than we have seen in many years. And the food dehydrating industry is oiling the machinery for a record-breaking output. It all looks as if more food and less water will be shipped to our soldiers and allies abroad.

RALPH W. OLMSTEAD,  
*Agricultural Marketing  
Administration.*

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## The Farmer's Feed Bill

**B**AE recently completed a study of the year-to-year changes since 1910 in farmers' expenditures for feeds, in the quantity of feeds purchased, and in the level of prices paid by farmers for feed. It was learned that farmers' expenditures for feeds during the last 32 years "have fluctuated much more than expenditures for any other group of commodities

bought by farmers." From 1910 to 1914 the expenditures for feed averaged 6.8 percent of total cash farm income, but from 1917 to 1924 the proportion of cash farm income spent for feeds increased somewhat, and during the period 1925-29 the proportion averaged 8.5 percent. The proportion of cash farm income spent for feeds declined during the depression and

drought years, but in recent years it has been at about the 1925-29 level.

Feed prices have not ascended to the heights reached during World War I, but feed production in 1941 was the largest on record. The sharp run-up of prices during World War I was followed by a rapid increase in production of grains and hay and the conversion of great quantities of byproducts into commercial feeds. A mixed-feed industry was developed as farmers began to demand feeds of specified protein content. Prices fell sharply after World War I but production continued to increase and was soon double the pre-war output. Prices continued to fall, got below the pre-war level during the depression of the early 30's, but production never got down to its pre-war figures.

**T**HE rise of the commercial feed industry is the result of the development of many new agricultural practices and production techniques. Many farmers who used to mix their own feed now buy commercially mixed feed instead, and they buy increasingly large quantities of high protein byproduct

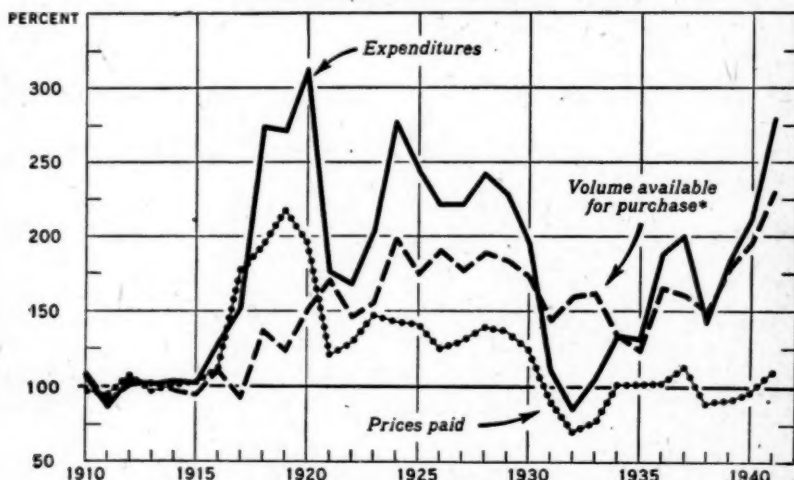
Farmers are buying more feed this year than ever before, and the money outlay for all of 1942—totaling approximately 1.5 billion dollars—will be the largest on record. Feed prices have been about a third higher to date this year than in the like period in 1941, as farmers' requirements for feed have increased greatly to produce the big volume of meat and livestock products needed during this period of wartime emergency. Requirements for feed will be even greater in 1943 since still larger quantities of meats and livestock products will be needed for civilian and military use on the home front and for export under Lend-Lease commitments.

—Ed.

feeds as scientific research puts increasing emphasis upon the value of these products. Another factor has been the increasing specialization in agricultural production, the outstanding examples being the great livestock feeding industries in the mid-West, and the operation near cities of so-called "farm factories" which buy practi-

# FEED: FARM EXPENDITURES, PRICES PAID BY FARMERS, AND VOLUME AVAILABLE FOR PURCHASE BY FARMERS, UNITED STATES, 1910-41

INDEX NUMBERS (1910-14=100)



\* TOTAL DOMESTIC DISAPPEARANCE OF 10 IMPORTANT FEEDS MINUS QUANTITIES REQUIRED FOR ALL USES OTHER THAN FARM FEED



cally all of the feed they use in the production of milk and eggs.

In the "farm factory" the cow and the hen are simply machines into which feed is put for conversion into milk and eggs. Practically the only equipment needed is a barn for the cows and an apartment house for the poultry. Pasture is practically nonexistent, since the land around cities is too costly for such use, and even the sunlight nowadays may be administered chemically. Like the mine mule, it's a rare day when the factory hen gets out into the open. The factory cow does a little better, getting some daily outdoor sunshine in an exercise lot.

Total quantities of feed grains marketed by farmers have not increased substantially since 1910, but

the quantities used industrially, exported and fed to nonfarm livestock have declined. (There may be an increase in industrial use this year.) The result is that the quantity of feed grains available for purchase by farmers since 1920 has been  $1\frac{1}{2}$  to 2 times as large as in the period 1910-14. Even more striking is the increase in quantities of hay available for purchase by farmers, such purchases in recent years having been more than 4 times the quantity bought during the period 1910-14.

THE manufacture of wheat offal has been fairly constant since 1910 and the production of corn meal has declined, but the output of high protein oilmeal feeds such as cottonseed meal, flaxseed meal, and soybean meal has

# Value of Selected Feeds Available for Purchase by Farmers, and Farmers' Estimated Expenditures for all Feeds, United States, 1909-41

[In millions of dollars]

Year	Corn <sup>1</sup>	Oats <sup>1</sup>	Hay <sup>1</sup>	Cotton- seed cake and meal <sup>2</sup>	Wheat offal <sup>2</sup>	Linseed cake and meal <sup>2</sup>	Soybean cake and meal <sup>2</sup>	Total estimated expendi- tures <sup>3</sup>
1909	70	24	36	27	122			390
1910	83	28	29	42	123			426
1911	55	13	17	39	127			360
1912	67	28	28	38	138			419
1913	60	14	27	52	129	1		406
1914	31	35	34	47	139	4		414
1915	67	0	38	38	140	3		411
1916	63	29	56	58	145	3		517
1917	22	19	72	93	204	12		614
1918	277	65	89	113	189	15		1,106
1919	219	29	113	115	251	13		1,097
1920	295	84	132	55	262	19		1,254
1921	151	60	75	51	136	4		710
1922	107	32	97	53	155	7	1	676
1923	163	39	104	51	186	14	1	819
1924	258	124	123	61	184	16	2	1,116
1925	198	90	102	70	198	19	1	988
1926	185	67	107	75	167	19	2	891
1927	175	44	104	81	183	21	2	892
1928	226	60	101	86	202	25	5	977
1929	187	62	113	87	190	23	8	919
1930	142	34	108	82	172	17	6	791
1931	69	21	65	42	103	10	5	448
1932	58	13	59	35	74	5	3	348
1933	84	16	53	44	89	4	4	422
1934	103	2	66	60	124	4	6	542
1935	52	20	62	55	130	8	13	528
1936	133	22	69	65	150	8	27	755
1937	104	41	74	78	157	10	27	805
1938	57	25	45	62	110	6	28	577
1939	105	25	52	65	132	9	40	732
1940	139	38	60	62	134	17	47	850
1941	238	56	65	63	138	30	65	1,126

<sup>1</sup> Estimated calendar year sales minus quantities used industrially and in other nonfarm uses valued by prices received by farmers.

<sup>2</sup> Estimated quantities manufactured minus nonfarm uses and net exports valued at prices paid by farmers.

<sup>3</sup> This total includes a number of feeds and services in addition to the items given in this table.

increased sharply—particularly since 1923. Production of linseed cake and meal increased sharply from 1913 to 1928, declined somewhat during the depression and drought years of the 1930's, but then increased and will likely be the largest on record this year. Little flaxseed meal is being exported now.

Production of soybean cake and meal has increased greatly since 1933. In 1941 the output was 14 times that in 1933, and nearly as large as the quantity of cottonseed cake available as feed. In 1942-43 the output of soybean cake and meal will be the largest ever as result of the great expansion in acreage of beans this year for the production of oil. Larger quantities of cottonseed cake and meal also will be produced this year than last.

Production of cottonseed cake and

meal is dependent primarily upon the production of cotton lint, but in years of high prices for seed a slightly larger proportion of the cottonseed crop is sold. During the period 1910-16 about one-fourth to one-third of the production of cottonseed cake and meal was exported, but exports have since declined sharply and in several recent years imports have exceeded exports. This has resulted in an increasing quantity of cake and meal available for purchase by farmers since 1915, but the increase has been much less than the increase in other oil meals.

Peanut meal was relatively unimportant until the production of peanut oil began to expand rapidly in 1933. Vast quantities should be available in 1942-43 as result of a 66-percent increase in acreage of peanuts in response to the Government program for increased production of oilcrops this year.—F. G.

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## The National Feed Balance

**O**UR 1942 food production program might well have been impossible without the reserve stocks of feed grains that have been built up in recent years. But even with these reserve stocks added to our probable feed crop production in 1942, our supplies are no more than adequate. Normal crops in 1942 would carry us safely through our 1942-43 livestock program; however, in terms of our corn crop—the backbone of our feed supply—a repetition of the poor yields of 1924 and 1930 would cause substantial reductions in livestock output over the next 2 years, unless large quantities of wheat should be used for feed; and a drought year like 1934 or 1936 would be a serious blow to our livestock production program.

Just what are our supplies of corn, oats, and barley today compared with what they are likely to be this fall—or a year from this fall? Nearly 23 million tons of feed grains were carried

over in the fall of 1941. This carry-over, together with the crops of 1941 and with some help from wheat, mill-feeds, and high-protein concentrates, is the feed basis for much of our present livestock program.<sup>1</sup>

**T**HE 1942 livestock program now involves 121 billion pounds of milk, 21 billion pounds of hog production, over 50 billion eggs, and increases in all livestock except horses and mules. These livestock will have consumed nearly 111 million tons of feeds by October 1942. Hogs alone will need about 42 million tons—mostly corn. Add to this quantity of feed consumed by livestock the feed grains used for seed, exports, human food, and other commercial uses. The total is 123

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<sup>1</sup> Adequate supplies of hay and pasture are assumed in this discussion. Hog production is based on 35.6 million 1941 fall pigs and 62 million 1942 spring pigs. Milk production is estimated for the year from the current rate of production.

million tons or nearly 3 million more than the quantity of feed produced in 1941. This deficit must be made up by digging into our reserves. To get even this result, we take advantage of the excellent 1941 crops and also must feed some 50 million bushels of Government wheat by October 1, 1942.

These inroads on reserve stocks would leave a carry-over of corn on October 1, 1942, of around 570 million bushels, an oats carry-over of 175 million bushels, and a barley carry-over assumed to be about the same as in 1941, 71 million bushels. This would give us a total carry-over of about 20 million tons of old grain in the fall of 1942. But, in 1943, we are thinking of producing 125 billion pounds of milk, 22 billion pounds of hogs,<sup>2</sup> and other livestock that will raise our feed needs from 111 million tons to 118 million tons, an increase of 7 million. Other uses also are expected to increase, so that the total needs in 1943 probably will be 6 percent greater than in 1942. To meet these needs there will be a 1942 crop of almost 122 million tons and the carry-over of 20 million tons. The drag against these supplies will be 131 million tons, leaving a carry-over in 1943 of 11 million—or about half that of 1941. This assumes the feeding of 100 million bushels of Government wheat in 1943.

**I**N some respects these calculations may be too optimistic, since average yields of the past 5 years are used in estimating the 1942 production of feed crops. Corn, for example, is figured at its 1937-41 average of 29 bushels, even though its pre-drought (1919-32) average was only 26. However, some increase in United States average yields should be allowed as a result of the great increase in the use of hybrid seed in the Corn Belt. This advance, plus some gain from the soil-conserving programs of recent years

<sup>1</sup> Assuming 62 million spring pigs in both 1942 and 1943, and 40 million fall pigs in 1942.

## National Feed Balance

Item	1941-42	1942-43	Percentage change
	1,000 tons	1,000 tons	Percent
Carry-over of old grain <sup>1</sup>	22,953	20,692	-10
New crop <sup>2</sup>	121,448	121,713	0
Needed for feed	110,764	117,608	+6
Needed for other uses <sup>3</sup>	12,945	13,645	+5
Carry-over end of year	20,692	11,092	-46
Grain consuming units of livestock and poultry <sup>4</sup>	164,827	175,102	+6

<sup>1</sup> Corn, oats, and barley beginning of crop year.

<sup>2</sup> Production of corn, oats, barley, and grain sorghums. Prospective acreage and 5-year average yields are used in the 1942 estimate. Also included in 1942 are 50 million bushels and in 1943, 100 million bushels of Government wheat above the normal amount fed. Also included are the probable production of high-protein and milfeeds.

<sup>3</sup> Other uses include seed, exports, food, and commercial uses.

<sup>4</sup> Units equal to 1 milk cow for a year.

may make 29 bushels a reasonable yield figure.

It should be recognized, however, that the livestock program for 1942-43—in fact our whole production program—is on the thin ice of “average yields.” If corn yields in 1942 should fall to the pre-drought average there would be a feed deficit. Each bushel variation (on the basis of 90 million acres planted) will change the carry-over or the quantity fed to livestock by 90 million bushels or 2.5 million tons. Also, the carry-over would vary considerably by any variation from estimates in the number of pigs saved this spring or fall. For every million below the 62 million pigs expected this spring, we can add 10 million bushels to the carry-over of feed in the fall of 1942 and 8 million to the carry-over in the fall of 1943. For every million variation in the 40 million fall pigs that may be produced in 1942 we can add or subtract 18 million bushels to the 1943 carry-over.

Another big unknown in the feed situation is the extent to which uses other than feed will be increased in the next 2 years. The 1943 estimates include 25 million bushels of additional corn for commercial use, but this figure would be increased greatly

if more corn were needed for alcohol production, or—as suggested at a recent Senate hearing—as a part of a formula in rubber production. At present, we are fairly well in balance as between feed and livestock, be-

cause of reserves which include a large supply of wheat; but perhaps we should not place too much dependence upon the everlasting nature of these stock piles.

R. D. JENNINGS.

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## Manpower in the Big Wheat Harvest

THE specter of wheat rotting in the fields for want of harvest labor haunted the food-for-victory program of 1917-18. An emergency drive was needed to recruit the thousands of new harvest workers needed for Great Plains wheatfields. This was a major undertaking of vital necessity. In the present year of war, this threat is largely absent, because of the adoption since then of improved harvest techniques—especially combining. Also, an effective campaign is being carried out by the Federal Employment Service, the USDA, and State and local agencies to utilize every man-day of available local labor. Notably, the increasing number of reports of serious farm labor stringencies have not been coming from the major wheat areas in Kansas and North Dakota.

Published by the Department in April of this year, the results of a study<sup>1</sup> covering the small grain harvest of 1938 in North Dakota and Kansas brings to focus the basic situation which in World War II makes the labor shortage threat to wheat supplies so much less grave. Concerning the effect of the combine, the study revealed that in North Dakota in 1938 approximately 3,150,000 man-days of labor were needed to bring in nearly

12,400,000 acres of wheat, oats, barley, rye, and flax. Had no combines been used, about 640,000 additional man-days of labor would have been required, an increase over actual labor use of approximately 20 percent. In 1938, one-fourth of all grain was harvested by combines, nearly 6 percent by headers, about one-tenth of 1 percent by miscellaneous methods, and the remainder by binders.

In quantity of labor used, combines ranged from two and one-half to four times as efficient as other methods; for every man-day used on a combine, from one and one-half to three additional man-days of labor were required by header or binder-thresher methods to harvest the same acreage. The combine cut and threshed 25.4 percent of the small-grain acreage on the farms surveyed in 10.6 percent of the total man-days needed to do the entire harvesting.

MANY more combines will be in use in North Dakota in 1942 than in 1938. Aside from direct saving of labor, use of combines may have yet another effect—the employment of an army of farm women to drive grain trucks and the tractors furnishing motive power. Of the typical combine crew of three, all but the combine operator might well be women or boys too young for more strenuous tasks. Such employment of women and boys may be relatively large this year in central and western Kansas where

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<sup>1</sup> *Men and Machines in the North Dakota Harvest*—United States Department of Agriculture, Bureau of Agricultural Economics and Farm Security Administration Cooperating, by Robert M. Cullum, Josiah C. Folsom, and Donald G. Hay; Washington, D. C., April 1942, 62 p. mimeo.



more than 90 percent of the wheat is combined.

The second important factor is maximum utilization of every available man-day of labor. Probably no single instance of wasted manpower—aside from the unemployment of the 30's—has equaled that of the prodigal use by American farmers of the large supply of farm labor which existed during the 1920's and 1930's. Estimates were that 25 to 30 thousand workers from out of State had harvest employment in North Dakota in the year of the study, 1938. Yet the findings were conclusive that by a 50 percent effective use of farm and local (in-State) labor, the small grain harvest that year could have been brought in without a single farm worker from out of State.

The average harvest laborer, whether from farm, town, or out of State, worked less than 2 weeks during the 6 weeks of the harvest season. Latent resources of manpower under conditions of full employment for the whole period are tremendous. Actually, the farm and local labor performed nearly 90 percent of all harvest jobs in North Dakota in 1938, up to the threshing operation.

Evidence adduced by the study that the great proportion of the work of reaping grain was done by the resident farm labor force suggests that additional labor—particularly transient labor—was a convenience rather than an absolute necessity. Thus, although it is true that grain must be cut when ready, so that shattering will be prevented, this part of the work was being done mainly without outside help. And once the grain is in the shock, where the danger of damage is diminished, there is less urgency for immediate handling. It would take the local labor force longer to do the threshing than if aided by hired labor, but there is usually sufficient time for it. However, more farmers would have to exchange labor and equipment.

The conclusion is inescapable that

the peak requirements of threshing provided the real necessity for the use of nonfarm labor, and that a different management of this part of the work would have enabled farmers and the labor force at their immediate command to do a much greater proportion of the entire job.

THE task of making ready for full employment during the coming harvest is being met aggressively, as indicated by reports of a plan sponsored by the Governor of North Dakota to obtain from farmers a detailed statement of labor needs and for registration of all available local labor. A consolidated report is to be drawn up about June 15 by County War Boards and passed on to the Federal Employment Service. In addition, County Defense Councils will recruit individuals from cities and towns to form a pool of workers for farmers to draw on when other sources are exhausted.

As a final resource there will still be transients numbered in thousands: fewer, unquestionably than in past years; older—half those interviewed in 1938 were under 25 and highly eligible for the army; a larger percentage riding the freights than before, because fewer will be able to come in on their own rubber. These transients were a "convenience" in 1938. They made it unnecessary for employers to make full use of every scrap of labor, or to provide and operate the arrangements to maintain full employment. This year labor supplies will be short and transients will be more than a convenience; collectively they will provide insurance that the crop is brought in on time. This year, employment service and other machinery for full employment has been augmented; it is ready and oiled. Cooperation of farmers in its use is certain. At this writing, widespread shortages of harvest labor do not appear likely in the wheat country.

JOSIAH C. FOLSOM.  
ROBERT M. CULLUM.

# Cotton Crop Insurance in 1942

**C**OTTON crop insurance has been put into effect this year for the first time, in 18 States throughout the Cotton Belt. Administration is by the Federal Crop Insurance Corporation. Preliminary estimates indicate that approximately 171,000 contracts, representing about 1,500,000 acres had been written as of March 31, the final closing date for taking applications. Most of the insurance was written in the nine States constituting the old Cotton Belt. Texas leads all States, followed in order by Georgia, South Carolina, Louisiana, Alabama, Oklahoma, North Carolina, Mississippi, and Arkansas.

The general plan of cotton-crop insurance, which was prepared by the Bureau of Agricultural Economics, is to insure either 50 or 75 percent of the average per-acre production on the individual farm. The farmer can elect whether 50 or 75 percent of the average yield is to be insured. In case two or more interests are involved, as a landlord and sharecropper, contracts are written separately for each. While the general plan is based on lint, cottonseed coverage is also included by increasing the cost 19 percent.

**T**HE insurance covers risks resulting from unavoidable hazards, such as drought, excessive moisture, plant diseases, and insect pest injury. The farmer is expected to follow the regular and approved practices of the community in which he farms. Payment is not provided for losses sustained as a result of theft or poor farming practices. Since the program is one of yield insurance, no protection is offered against damage to quality of the cotton crop.

Shortages of labor, equipment, fertilizer, and other supplies have introduced new problems into the administration of the program, as some

farmers are unable to follow the practices upon which their premiums are based. Under the policy announced by the FCIC an adjusted payment will be made for the loss after deducting any savings to the farmer resulting from his inability to execute the usual practices.

Premium rates, or the charges for the insurance, are based upon what are called "loss costs." The following table shows how the loss cost for an individual farmer is calculated.

Crop year	Average yield per acre	75 percent coverage	Loss cost
	<i>Pounds of lint</i>	<i>Pounds of lint</i>	<i>Pounds of lint</i>
1934.....	119	171	52
1935.....	212	171	0
1936.....	126	171	45
1937.....	329	171	0
1938.....	284	171	0
1939.....	170	171	1
1940.....	356	171	0
Total.....	1,596		98
7-year average.....	228	171	14

The average yield of this farm during the period 1934-40 was 228 pounds of lint per acre. If the farm had been insured for 75 percent of the average yield, the insured yield would have been 171 pounds of lint. In certain years the farm did not produce the insured yield, and the farmer would have received a loss settlement. Over the 7-year period covered by the table, the average annual loss (insured yield minus actual yield) was 14 pounds of lint. This is the annual "loss cost" of the insurance, or the amount that the farmer would have to pay (in cotton) as an annual premium per acre. In practice, however, the individual farm premium rate is usually adjusted slightly to take account of experience in the county over a longer period, and for risks not fully reflected in the yield history on the farm.

**M**ANY eopple assume that if the yields are high the cost of the insurance will be high. But this is not necessarily the case, as the variation of actual yields below insured yields has an important influence upon the premium rate.

The following table shows that average premium rates for various counties selected throughout the Cotton Belt are not closely related to the average yields.

County	State	Average yield per acre	Premium rate, 75 percent insurance
		Pounds of lint	Pounds of lint
Brooks.....	Georgia.....	202	14.6
Hall.....	do.....	236	6.1
Grenada.....	Mississippi.....	203	8.6
Jackson.....	do.....	198	13.3
Mecklenberg.....	North Carolina.....	295	12.0
Columbus.....	do.....	289	20.0
Muskogee.....	Oklahoma.....	160	22.7
Choctaw.....	do.....	133	13.9
Pecos.....	Texas.....	273	17.9
Wise.....	do.....	122	10.7
Fresno.....	California.....	603	23.

In sections of the Cotton Belt where irrigation has been introduced or is practiced on some farms, rates were made to meet these special conditions. An example of this arrangement and the rate treatment may be cited in the data from the following Texas counties.

County	Average yield		Premium rate, 75 percent insurance	
	Irrigated	Nonirrigated	Irrigated	Nonirrigated
	Pounds of lint	Pounds of lint	Pounds of lint	Pounds of lint
Castro.....	261	128	13.3	19.5
Lubbock.....	324	153	16.5	23.3

Premiums and loss settlements are computed in lint cotton but payments usually will be made in cash equivalent at the current market price of cotton.

**L**OCAL operation of the crop insurance program is largely in the

hands of the AAA. Yield and premium rates for individual farms by counties are developed by the county ACP committee prior to the time for taking applications. The calculations are made under the supervision of the State committees, later being reviewed and approved by the Corporation, which has set up branch offices at Dallas, Tex., and Birmingham, Ala.,

Farmers sign up for insurance and give a commodity note for the premium in the AAA offices at periods established just prior to the regular planting season. This note is payable at harvest time. The contract then becomes effective when the cotton is planted. Additional functions of the county committee are to measure the acreage and serve as the agency of the Corporation in the settlement of any losses that may be claimed by the growers.

NORMAN J. WALL.  
JOHN D. RUSH.

## TURPENTINE: Increase

Government goal calls for an increase of 58 percent in production of turpentine this year over last. Government commodity loan rate on turpentine is 55 cents per gallon; on rosin, from \$2.80 per hundred weight net for grade "G" to \$3.25 for "WW" and "X" grades. Loan rate on average quality gum stored at approved central distribution plants is about \$14 per standard barrel of 435 pounds net.

Heretofore about 80 to 85 percent of gum naval stores has been produced by the larger operators, principally on leased timber. But high lease prices and labor shortages make it unlikely that these large-scale lease operators will supply more than a small part of the increased production needed this year. Most of the increase will come from small producers working their own trees and delivering gum to central processing plants.

# Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 = 100) <sup>1</sup>	Income of industrial workers (1935-39 = 100) <sup>2</sup>	Cost of living (1935-39 = 100) <sup>3</sup>	Whole sale prices of all com- modities <sup>4</sup>	1910-14=100			Farm wages	Taxes <sup>5</sup>
					Prices paid by farmers for commodities used in <sup>6</sup>				
					Living	Production	Living and production		
1925	90	126	125	151	164	147	157	176	270
1926	96	131	126	146	162	146	155	179	271
1927	95	128	124	139	159	145	153	179	277
1928	99	127	123	141	160	148	155	179	279
1929	110	134	122	139	158	147	153	180	281
1930	91	110	119	126	148	140	145	167	277
1931	75	85	100	107	126	122	124	130	254
1932	58	59	98	95	108	107	107	96	220
1933	69	61	92	96	109	108	109	85	188
1934	75	76	96	109	122	125	123	95	178
1935	87	87	98	117	124	126	125	103	180
1936	103	100	99	118	122	126	124	111	181
1937	113	117	103	126	128	135	130	126	186
1938	89	91	101	115	122	124	122	125	183
1939	108	105	99	113	120	122	121	123	186
1940	123	119	100	115	121	124	123	126	183
1941	156	163	105	127	133	133	133	147	-----
1941—May	154	157	103	124	-----	-----	125	-----	-----
June	159	167	105	127	129	128	128	-----	-----
July	160	173	105	130	-----	-----	130	160	-----
August	160	174	106	132	-----	-----	133	-----	-----
September	161	177	108	134	136	135	136	-----	-----
October	163	178	109	135	-----	-----	139	165	-----
November	166	180	110	135	-----	-----	141	-----	-----
December	167	187	110	137	143	141	142	-----	-----
1942—January	171	196	112	140	-----	-----	146	166	-----
February	172	194	113	141	-----	-----	147	-----	-----
March	172	194	114	142	150	149	150	167	-----
April	174	202	115	144	-----	-----	151	177	-----
May	-----	-----	-----	144	-----	-----	152	-----	-----

Year and month	Index of prices received by farmers (August 1909-July 1914=100)							Ratio prices received to prices paid
	Grains	Cotton and cotton-seed	Fruits	Truck crops	Meat animals <sup>1</sup>	Dairy products	Chickens and eggs	
1925	157	177	172	153	141	153	163	156
1926	131	122	138	143	147	152	159	145
1927	128	128	144	121	140	155	144	139
1928	130	152	176	159	151	158	153	149
1929	120	144	141	149	156	157	162	146
1930	100	102	162	140	134	137	129	126
1931	63	63	98	117	92	108	100	87
1932	44	47	82	102	63	83	82	65
1933	62	64	74	105	60	82	75	70
1934	93	99	100	103	68	95	89	90
1935	103	101	91	125	117	108	117	108
1936	108	100	100	111	119	119	115	114
1937	126	95	122	123	132	124	111	121
1938	74	70	73	101	114	109	108	95
1939	72	73	77	105	110	104	94	93
1940	85	81	79	114	108	113	96	98
1941	96	113	92	145	144	131	122	122
1941-May	93	98	89	146	136	124	107	112
June	96	107	97	146	142	126	118	118
July	98	121	93	130	151	132	127	125
August	99	128	100	133	155	135	130	131
September	106	150	89	145	163	140	141	139
October	101	144	107	164	154	145	146	139
November	103	136	98	147	149	148	157	135
December	112	138	98	162	157	148	153	143
1942-January	119	143	102	204	164	148	147	149
February	121	150	98	161	173	147	135	145
March	122	151	111	136	180	144	130	146
April	120	158	118	158	190	142	131	150
May	120	159	131	152	189	143	134	152

<sup>1</sup> Federal Reserve Board, adjusted for seasonal variation. Revised September 1941.

<sup>2</sup> Adjusted for seasonal variation. Revised November 1941.

<sup>3</sup> Bureau of Labor Statistics.

<sup>4</sup> Bureau of Labor Statistics index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>5</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>6</sup> Index of farm real estate taxes per acre. Base period represents taxes levied in the calendar years 1909-13, payable mostly within the period Aug. 1, 1909-July 31, 1914.

NOTE.—The index numbers of industrial production and of industrial workers' income shown above are not comparable in several respects. The production index includes only mining and manufacturing, the income index also includes transportation. The production index is based on volume only, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income, since output can be increased or decreased to some extent without much change in the number of workers.